Luis von Ahn

Professional Employment

2011-present	**A. Nico Habermann Associate Professor.** Computer Science Department, Carnegie Mellon University.
2009-present	**Staff Research Scientist.** Google, Inc.
2006-2011	**Assistant Professor.** Computer Science Department, Carnegie Mellon University.
2008-2009	**Founder and CEO.** ReCAPTCHA, Inc. (acquired by Google, Inc., in 2009).
2005-2006	**Post-Doctoral Fellow.** Computer Science Department, Carnegie Mellon University.

Education

Carnegie Mellon University, Pittsburgh, PA.
Ph.D. in Computer Science, 2005.
Advisor: Manuel Blum
Thesis Title: Human Computation

Carnegie Mellon University, Pittsburgh, PA.
M.S. in Computer Science, 2003.

Duke University, Durham, NC.
B.S. in Mathematics (Summa Cum Laude), 2000.

Research Interests

I am working to develop a new area of computer science that I call Human Computation. In particular, I build systems that combine the intelligence of humans and computers to solve large-scale problems that neither can solve alone. An example of my work is reCAPTCHA, in which over 750 million people—more than 10% of humanity—have helped digitize books and newspapers.

Selected Honors

MacArthur Fellow, 2006-2011.

Packard Fellow, 2009-2014.

Discover Magazine: 50 Best Brains in Science, 2008.

Fast Company: 100 Most Creative People in Business, 2010.

Silicon.com: 50 Most Influential People in Technology, 2007.

Microsoft New Faculty Fellow, 2007.

Sloan Fellow, 2009.

CAREER Award, National Science Foundation, 2011-2015.

Smithsonian Magazine: America's Top Young Innovators in the Arts and Sciences, 2007.

Technology Review's TR35: Young Innovators Under 35, 2007.

IEEE Intelligent Systems "Ten to Watch for the Future of AI," 2008.

Popular Science Magazine Brilliant 10 Scientists of 2006.

Herbert A. Simon Award for Teaching Excellence in Computer Science, Carnegie Mellon University, 2008.

Alan J. Perlis Teaching Award, Carnegie Mellon University School of Computer Science, 2006.

Best Doctoral Dissertation Award, Carnegie Mellon University School of Computer Science, 2006.

Papers

Nitin Seemakurty, Jonathan Chu, **Luis von Ahn,** and Anthony Tomasic. Word Sense Disambiguation via Human Computation. *Human Computation Workshop (HCOMP 2010), July 25, 2010.*

Severin Hacker and **Luis von Ahn.** Matchin: Eliciting User Preferences with an Online Game. In *ACM Conference on Human Factors in Computing Systems, CHI 2009.* Pages 1207-1216.

Edith Law and **Luis von Ahn.** Input-Agreement: A New Mechanism for Collecting Data Using Human Computation Games. In *ACM Conference on Human Factors in Computing Systems, CHI 2009.* Pages 1197-1206.

Jennifer Tam, Jiri Simsa, Sean Hyde and **Luis von Ahn.** Breaking Audio CAPTCHAs with Machine Learning Techniques. In *Advances in Neural Information Processing Systems, NIPS 2008.*

Nicholas Hopper, **Luis von Ahn** and John Langford. Provably Secure Steganography. In *IEEE Transactions on Computers, May 2009.* Pages 662-676.

Luis von Ahn, Ben Maurer, Colin McMillen, David Abraham and Manuel Blum. reCAPTCHA: Human-Based Character Recognition via Web Security Measures. *Science, September 12, 2008.* Pages 1465-1468.

Luis von Ahn and Laura Dabbish. General Techniques for Designing Games with a Purpose. *Communications of the ACM, August 2008.* Pages 58-67.

Edith Law, **Luis von Ahn**, Roger Dannenberg and Michael Crawford. TagATune: a Game for Sound and Music Annotation. *ISMIR 2007.*

Luis von Ahn, Shiry Ginosar, Mihir Kedia and Manuel Blum. Improving Image Search with Phetch. *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2007.*

Luis von Ahn. Games With A Purpose. *IEEE Computer Magazine, June 2006.* Pages 96-98.

Luis von Ahn, Andrew Bortz, Nicholas Hopper and Kevin O'Neill. Selectively Traceable Anonymity. *The 6th Workshop on Privacy Enhancing Technologies, PET 2006.* Pages 208-222.

Luis von Ahn, Ruoran Liu and Manuel Blum. Peekaboom: A Game for Locating Objects in Images. *ACM Conference on Human Factors in Computing Systems, CHI 2006*. Pages 55-64.

Luis von Ahn, Mihir Kedia and Manuel Blum. Verbosity: A Game for Collecting Common-Sense Knowledge. *ACM Conference on Human Factors in Computing Systems, CHI Notes 2006*. Pages 75-78.

Luis von Ahn, Shiry Ginosar, Mihir Kedia and Manuel Blum. Improving Accessibility of the Web with a Computer Game. *ACM Conference on Human Factors in Computing Systems, CHI Notes 2006.* Pages 79-82.

Luis von Ahn, Nicholas Hopper and John Langford. Covert Two-Party Computation. *Proceedings of the Symposium on the Theory of Computing (STOC) 2005*. Pages 513-522.

Luis von Ahn and Nicholas Hopper. Public-Key Steganography. *Advances in Cryptology, Eurocrypt 2004*. Pages 323-341.

Luis von Ahn and Laura Dabbish. Labeling Images with a Computer Game. *ACM Conference on Human Factors in Computing Systems, CHI 2004*. Pages 319-326.

Luis von Ahn, Manuel Blum and John Langford. How Lazy Cryptographers do AI. *Communications of the ACM, February 2004*. Pages 56-60.

Luis von Ahn, Andrew Bortz and Nicholas Hopper. k-Anonymous Message Transmission. *ACM Conference on Computer and Communications Security, CCS 2003*. Pages 122-130.

Luis von Ahn, Manuel Blum, Nicholas Hopper and John Langford. CAPTCHA: Using Hard AI Problems for Security. *Advances in Cryptology, Eurocrypt 2003.* Pages 294-311.

Nicholas Hopper, John Langford and **Luis von Ahn.** Provably Secure Steganography. *Advances in Cryptology, CRYPTO 2002*. Pages 77-92.

Summer Internships

Microsoft Research, Redmond,WA. Summer 2004. Worked with Dr. Josh Benaloh investigating techniques to capitalize on human processing power for solving large-scale problems.

IBM T.J. Watson Research Labs, Hawthorne, NY. Summer 2002. Worked under Dr. Tal Rabin in the Cryptography Group on zero-knowledge proofs.

University of California, Berkeley. Summer 2001. Worked with Manuel Blum developing CAPTCHAs.

Teaching Experience

Instructor. "Great Theoretical Ideas in Computer Science (15-251)," Spring 2011, Carnegie Mellon University. Enrollment: 220 students.

Instructor. "Artificial Intelligence (15-381)," Fall 2009, Carnegie Mellon University. Evaluation as instructor from the students: **4.26/5.0.** Enrollment: 100 students.

Instructor. "Great Theoretical Ideas in Computer Science (15-251)," Spring 2009, Carnegie Mellon University. Evaluation as instructor from the students: **4.18/5.0.** Enrollment: 200 students.

Instructor. "Science of the Web (15-396)," Fall 2008, Carnegie Mellon University. Evaluation as instructor from the students: **4.8/5.0.** Enrollment: 70 students.

Instructor. "Great Theoretical Ideas in Computer Science (15-251)," Spring 2008, Carnegie Mellon University. Evaluation as instructor from the students: **4.7/5.0.** Enrollment: 185 students.

Instructor. "Great Theoretical Ideas in Computer Science (15-251)," Fall 2007, Carnegie Mellon University. Evaluation as instructor from the students: **4.1/5.0.** Enrollment: 55 students.

Instructor. "Great Theoretical Ideas in Computer Science (15-251)," Spring 2007, Carnegie Mellon University. Evaluation as instructor from the students: **4.7/5.0.** Enrollment: 175 students.

Instructor. "Great Theoretical Ideas in Computer Science (15-251)," Spring 2006, Carnegie Mellon University. Evaluation as instructor from the students: **4.7/5.0.** Enrollment: 170 students.

Instructor. "Formal Languages, Automata and Computability (15-453)," Fall 2005, Carnegie Mellon University. Evaluation as instructor from the students: **4.9/5.0.** Enrollment: 11 students.

Instructor. "Formal Languages, Automata and Computability (15-453)," Spring 2005, Carnegie Mellon University. Evaluation as instructor from the students: **4.9/5.0.** Enrollment: 28 students.

Teaching Assistant. "Great Theoretical Ideas in Computer Science (15-251)," Spring 2001, Carnegie Mellon University.

Teaching Assistant. "Algorithms (CPS-131)," Spring 2000, Duke University.

Teaching Assistant. "Software Design and Implementation (CPS-108)," Fall 1999, Duke University.

Teaching Assistant. "Abstract Algebra (MTH-121)," Fall 1999, Duke University.

Graduate Student Supervision

Severin Hacker, Carnegie Mellon University, Computer Science Department Ph.D. Student. 2007-present.

Edith Law, Carnegie Mellon University, Machine Learning Department Ph.D. Student. 2006-present.

Bryant Lee, Carnegie Mellon University, Computer Science Department Ph.D. Student. 2007-2009.

Brendan Meeder, Carnegie Mellon University, Computer Science Department Ph.D. Student. 2008-present.

Harshit Surana, Carnegie Mellon University, Language Technologies Institute M.S. Student, 2008-2010.

Jennifer D. Tam, Carnegie Mellon University, Computer Science Department Ph.D. Student. 2007-2010.

Thesis Committees

Johnny Lee, Carnegie Mellon University, Human-Computer Interaction Institute Ph.D. Student.
Thesis Title: Projector-Based Location Discovery and Tracking, 2008
(Johnny is currently working as a researcher at Microsoft in the Applied Sciences Group.)

Justin Weisz, Carnegie Mellon University, Computer Science Department Ph.D. Student.
Thesis Title: Social Online Video Experiences, Proposed March 2008.

Undergraduate Project/Thesis Supervision

Vicki Cheung, Undergraduate Research Project. "Crowdsourcing Language Translation." Summer 2010 - present.

Aaron Snook, Undergraduate Research Project. "Games With A Purpose." Summer 2010.

Bradley Yoo, Undergraduate Research Project. "Crowdsourcing Language Translation." Summer 2009 - present.

Zizhuang Yang, Undergraduate Research Project. "Crowdsourcing Language Translation." December 2009 - Spring 2010.

Abhinav Sharma, Undergraduate Research Project. "Crowdsourcing Language Translation." Summer 2009 - Spring 2010.

Daniel Schafer, Undergraduate Research Project. "The Twitter Social Network." Fall 2008 - Spring 2010.

Andrew Krieger, Undergraduate Research Project. "Social Networking Aspects of Games With A Purpose." Summer and Fall 2008.

Ben Wolf, Undergraduate Research Project. "Image-Based CAPTCHAs." Summer 2008 - Summer 2009.

Ben Maurer, Independent Study for Credit. "reCAPTCHA: Stop Spam, Read Books." Spring and Fall 2007, Spring and Fall 2008. (Ben is currently a software engineer at Facebook.)

Yinmeng Zhang, Research Experience for Undergraduates and Undergraduate Thesis. "Covert Multi-Party Computation." Summer and Fall 2005. (Yinmeng is currently a graduate student in MIT CSAIL.)

Mihir Kedia, Research Experience for Undergraduates. "A Game to Collect Common-Sense Knowledge." Spring, Summer and Fall 2005, Spring 2006. (Mihir is currently a graduate student in MIT CSAIL.)

Shiry Ginosar, Research Experience for Undergraduates. "A Game to Improve Accessibility of the Web." Summer and Fall 2005. (Shiry is currently working as a software engineer at Endeca.)

Roy Liu, Fifth Year Master's Thesis. "A Game to Help Computers Locate Objects in Images." Fall 2004, Spring and Fall 2005. (Roy is currently a graduate student in the computer science department at UCSD.)

Andrew Bortz, Research Experience for Undergraduates and Undergraduate Thesis. "Anonymous Communication." Spring, Summer and Fall 2003, Spring 2004. (Andrew is currently a graduate student in the computer science department at Stanford.)

Pravir Gupta, Independent Study for Credit. "Understanding CAPTCHA: Completely Automated Turing Test to Tell Computers and Humans Apart."' Fall 2002. (Pravir is current a software engineer at Google.)

Serkan Aksoz, Independent Study for Credit. "Understanding CAPTCHA: Completely Automated Turing Test to Tell Computers and Humans Apart." Fall 2002. (Serkan is currently an engineer at Facebook.)

**** I have supervised 35+ other students in various other capacities (e.g., as teaching assistants) ****

Department Service

Member of the Carnegie Mellon University Computer Science Department Doctoral Review Committee, 2006-present.

Faculty Organizer (with Dave Andersen). Carnegie Mellon University Computer Science Department Admitted Student Open House, 2009.

Faculty Organizer (with Dave Andersen). Carnegie Mellon University Computer Science Department Admitted Student Open House, 2008.

Member of the Carnegie Mellon University Computer Science Department Faculty Hiring Committee, 2008.

Faculty Organizer (with Dave Andersen). Carnegie Mellon University Computer Science Department Admitted Student Open House, 2007.

Scientific Community Involvement

Invited reviewer for: *IEEE Networks; Theory of Cryptography Conference (TCC) 2003; Symposium for the Theory of Computing (STOC) 2004; EUROCRYPT 2004; CRYPTO 2004; Graphics Interface Conference (GI) 2005; CRYPTO 2005; EUROCRYPT 2006; PKC 2006; UBICOMP 2006; CHI 2006; CHI 2008; CHI 2009; CHI 2010.*

Program Committee Member for the *Workshop on Human Interactive Proofs 2005* and *WWW 2008*.

Member of DARPA Information Science And Technology Study Group (ISAT), 2008 - 2009.

Co-Organizer and Steering Committee Member: Human Computation Workshop 2009, 2010.

Publicly Disclosed Patents

Luis von Ahn, Manuel Blum, Benjamin Maurer. Methods and Apparatuses for Controlling Access to Computer Systems and for Annotating Media Files. Filed January 2008.

Luis von Ahn, Ruoran Liu, Manuel Blum, Alexei Efros, Takeo Kanade and Manuela Veloso. Method for Locating Objects in Images using a Computer Game. Filed July 2005.

Luis von Ahn and Josh D. Benaloh. Improving quality of web search results using a game. Filed February 4, 2005. United States Patent Application 20060179053.

Luis von Ahn, Eric D. Brill, John C. Platt, and Josh D. Benaloh. Game-powered search engine. Filed January 24, 2005. United States Patent Application 20060167874.

Luis von Ahn. Method for Labeling Images through a Computer Game. Filed June 24, 2004. United States Patent Application 20050014118.

Distinguished Lectures

"Human Computation: reCAPTCHA and the ESP Game." Informatics@Edinburgh, University of Edinburgh, November 2010.

"Human Computation." National Science Foundation and National Science Board "Voices from the Future" 60th Anniversary Commemoration, August 2010.

"reCAPTCHA, the ESP Game and GWAPs." Duke University, October 2009.

"Human Computation." University of Toronto, February 2008.

"Human Computation." Carnegie Mellon University, February 2007.

Keynote Talks

"Solving Problems with Millions of Humans and Computers." **Federated Computing Research Conference (FCRC),** June 2011.

"Human Computation." **Gateway to Innovation Conference,** April 2011.

"Three Human Computation Projects." **ACM Special Interest Group on Computer Science Education Annual Conference,** March 2011.

"Using Human Computation for Cultural Heritage Collections of Museums and Archives." The Royal Library, Copenhagen, October 2010.

"Human Computation: Games to Help Image Retrieval." **ACM International Conference on Image and Video Retrieval 2009 (CIVR),** Santorini, Greece, May 2009.

"reCAPTCHA: Stop Spam, Read Books." **TechEd Technology in Education Conference,** March 2009.

"reCAPTCHA: Stop Spam, Read Books." **Computerworld's Premier 100 IT Leaders Conference,** March 2009.

"Human Computation: reCAPTCHA and GWAPs." **Intel Research Retreat,** August 2008.

"Human Computation: reCAPTCHA and GWAPs" **Robotics: Science and Systems (RSS),** June 2008.

"Human Computation: GWAPs." **International Conference on Data Engineering (ICDE),** April 2008.

"Human Computation: GWAPs." **Neural Information Processing Systems (NIPS),** December 2007.

"Human Computation." **International Conference on Knowledge Capture (K-CAP),** October 2007.

"Human Computation: Solving AI Problems with Computer Games." **Human Language Technologies: The Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL HLT),** April 2007.

"The ESP Game and CAPTCHA: Using the Power of Human Cycles." **Innovative Applications of Artificial Intelligence/International Joint Conference on Artificial Intelligence (IAAI/IJCAI),** August 2003.

Select Invited Talks

"Human Computation." Computer Science Colloquium Series, Williams College, April 2011.

"Human Computation." TEDxCMU, Carnegie Mellon University, April 2011.

"How the Public Is Helping the Web To Learn." AAAS Annual Meeting, Washington, DC, February 2011.

"reCAPTCHA and Human Computation." The UP Experience, Houston, October 2010.

"Augmented Intelligence: The Web and Human Computation." Web Science: A New Frontier, The Royal Society , London, September 2010.

"reCAPTCHA: Stop Spam, Read Books." Thinking Digital, Gateshead, UK, May 2010.

"Human Computation: How to Get People to Work for Free." Berkman Center for Internet & Society at Harvard University, April 2010.

"Human Computation: reCAPTCHA and GWAPs." MITRE Corporation, March 2010.

"Human Computation: reCAPTCHA and GWAPs." NIST, March 2010.

"Human Computation: reCAPTCHA and GWAPs." Mount Holyoke College, November 2009.

"reCAPTCHA: Stop Spam, Read Books." Pop!Tech 2009: America Reimagined, October 2009.

"Human Computation: How to Get People to Work for Free." Society for Human Resource Management Thought Leaders Retreat, October 2009.

"reCAPTCHA: Stop Spam, Read Books." Adventures of the Mind, Princeton University, August 2009.

"reCAPTCHA: Stop Spam, Read Books." 46th IEEE Design Automation Conference, July 2009.

"An Introduction to Crowdsourcing." Converciencia, Guatemala City, Guatemala, July 2009.

"reCAPTCHA and GWAPs." Innovative Applications of Artificial Intelligence (IAAI), July 2009.

"An Overview of Human Computation." Human Computation Workshop, Paris, France, June 2009.

"Human Computation: GWAPs." Computer Science Colloquium, Dartmouth College, April 2009.

"Human Computation: GWAPs." Studying Society in a Digital World, Princeton University, April 2009.

"reCAPTCHA: Stop Spam, Read Books." Bohemian Club, April 2009.

"Teaching Shenanigans," Colloquium on Computer Science Pedagogy/Herb Simon Teaching Excellence Award Lecture, Carnegie Mellon University, March 2009.

"Crowdsourcing." Foo Camp East, March 2009.

"Human Computation." Seminar on Cooperation and Human Systems Design, Harvard Univ., March 2009.

"reCAPTCHA: Stop Spam, Read Books." Computing Research that Changed the World: Reflections and Perspectives, Computing Research Association, March 2009.

"How to Get Work for Free." Society for Information Management SIMposium, November 2008.

"Human Computation." Washington University in St. Louis, October 2008.

"Human Computation." Princeton University Center for Information Technology Policy, October 2008.

"Human Computation." LGI/UPC 2008 Technology Summit, September 2008.

"Human Computation." CERN (European Council for Nuclear Research), June 2008.

"Human Computation." Lawrence Livermore National Labs, May 2008.

"reCAPTCHA: Stop Spam, Read Books." Microsoft Latin American Summit, May 2008.

"Collective Intelligence with Human Computation." MIT Center for Collective Intelligence, April 2008.

"Human Computation." Computer Science Colloquium, Cornell University, March 2008.

"Games With A Purpose." Lockheed Martin ITTC Conference, February 2008.

"Human Computation: reCAPTCHA and GWAPs." Northwestern University, February 2008.

"How to Get People to Work for Free." Ad Age's Idea Conference, November 2007.

"reCAPTCHA: Stop Spam, Read Books." USENIX, June 2007.

"Human Computation." HAN University, The Netherlands, March 2007.

"reCAPTCHA: Stop Spam, Read Books." TTI/Vanguard Conference on Identity and Trust, February 2007.

"reCAPTCHA: Stop Spam, Read Books." University of Illinois at Chicago, November 2006.

"reCAPTCHA: Stop Spam, Read Books." NASA Goddard Space Flight Center, October 2006.

"Solving Problems with Computer Games." Department of Homeland Security, October 2006.

"Human Computation." Tech Talk at Google in Mountain View, CA, July 2006. **(Viewed over 1M times.)**

"Human Computation: GWAPs." University of Michigan, May 2006.

"Human Computation: GWAPs." Yahoo! Research, May 2006.

"Why Do Tagging Systems Work?" Invited panelist for ACM CHI Panel, April 2006.

"Human Computation: GWAPs." University of Texas at Austin, April 2006.

"Human Computation: GWAPs." Georgia Institute of Technology, April 2006.

"Human Computation: GWAPs." University of Washington, March 2006.

"Human Computation: GWAPs." Microsoft Research, March 2006.

"Human Computation: GWAPs." Massachusetts Institute of Technology (EECS), March 2006.

"Human Computation: GWAPs." Stanford University, March 2006.

"Human Computation: GWAPs." University of Illinois at Urbana-Champaign, March 2006.

"Human Computation: GWAPs." MIT Media Lab, February 2006.

"Human Computation: GWAPs." California Institute of Technology, February 2006.

"Human Computation: GWAPs." University of California at Berkeley, February 2006.

"Social Web Games." School on Semiotic Dynamics, Language, and Complexity, Erice, Italy, December 2005.

"Covert Two-Party Computation." Toyota Technological Institute, November 2005.

"ESP: Labeling Images with a Computer Game." Drexel University, May 2005.

"ESP: Labeling Images with a Computer Game." AAAI Spring Symposium, March 2005.

"The ESP Game." Google in Mountain View, CA, December 2004.

"The ESP Game and CAPTCHA." Stanford University, December 2004.

"The ESP Game and CAPTCHA: Using the Power of Human Cycles." Univ. of Minnesota, October 2004.

"The ESP Game and CAPTCHA: Using the Power of Human Cycles." Microsoft Research, August 2004.

"The ESP Game." Toyota Technological Institute in Chicago, May 2004.

"CAPTCHA." University of Montreal, December 2003.

"A Novel Approach to Labeling." Summer School for Industry, Carnegie Mellon University's Center for Automated Learning and Discovery, June 2003.

"k-Anonymous Message Transmission." ALADDIN Workshop on Privacy, March 2003.

"Provably Secure Steganography." Bell Labs, July 2002.

"CAPTCHA: Telling Humans and Computers Apart Automatically." Workshop on Human Interactive Proofs, Palo Alto, CA, January 2002.

"CAPTCHA: Telling Humans and Computers Apart Automatically." IBM T.J.Watson Research Labs, NY, December 2001.

Select Press Coverage

Select News Articles, TV and Radio Programs about CAPTCHA

- "Spam CAPTCHAs." **Discovery Channel,** originally aired April 16, 2004.
- "Researchers Battle E-mail Stealing Web Bots with Identity Checks." **Associated Press,** December, 2002. (Appeared in over 50 newspapers around the world, including **USA Today.**)
- "The CAPTCHA Project." **NPR As It Happens** (Radio Show), December 2002.
- "Human or Computer? Take This Test." **The New York Times,** December 10, 2002.
- "Can Hard AI Problems Foil Internet Interlopers?" **Society of Industrial and Applied Mathematics News** (SIAM News), April 2002.

Select News Articles and TV Programs about The ESP Game

- "Image Labeling for Blind Helps Machines 'Think.'" **The Washington Post,** November 21, 2006.
- "Are you Google's gopher?" **BBC News,** September 13, 2006.
- "Online Diary: The ESP Game." **The New York Times,** January 15, 2004.
- "The ESP Game Labels Images Online." **BBC Worldwide Click Online** (TV Show), January, 2004.
- "Teaching Computers to Think." **CNN.com,** October 17, 2003.
- "Researchers Hope to Improve Web Searches." **Associated Press,** October 2003. (Appeared in over 50 newspapers around the world, including **USA Today.**)
- "CMU Student Taps Brain's Game Skills." **Pittsburgh Post-Gazette,** October 5, 2003.

Select Press Coverage about Peekaboom

- "Hide and Peek." **PC Magazine,** October 4, 2005.
- "Guessing Game Gives Machines Clearer Vision." **New Scientist,** August 9, 2005.
- "Teaching Computers to See with Games." **Slashdot,** August 4, 2005.
- "CMU Online Game Used to Teach Computers to See." **Pittsburgh Post-Gazette,** August 1, 2005.

Select Press Coverage about Phetch

- "New Game Helps the Blind Access Web Sites." **IEEE Computer Magazine News,** August 2006.
- "Gamers Help The Blind Get The Picture." **New Scientist,** May 16, 2006.

Select Press Coverage about GWAPs

- "Solving the web's image problem." **BBC News,** May 14, 2008.
- "Play With A Purpose." **MSNBC Cosmic Log,** May 14, 2008.
- "Gamers teach search engines how to see." **New Scientist,** May 14, 2008.

Select Press Coverage about reCAPTCHA

- "Antispam weapon recaptures lost text." **The Guardian (UK),** November 26, 2008.
- "Click to translate." **Boston Globe,** August 17, 2008.
- "Anti-spam tool used to translate old books." **The Times,** August 14, 2008.
- "Web Security Words Help Digitize Old Books." **NPR All Things Considered** (Radio Show), August 14, 2008.
- "Web-Security Inventor Charts a Squigglier Course." **The Wall Street Journal,** August 13, 2008.
- "ReCaptcha: Reusing your 'wasted' time online." **CNET News,** July 16, 2008.
- "reCAPTCHA: Stop Spam, Read Books." **NPR News,** May 2007.
- "Researchers Turn Web Blather to Books." **Associated Press,** May 25, 2007. (Appeared in over 50 newspapers around the world, including **USA Today, CNN.com** and **The Washington Post.**)

Select Biographical Press Coverage

- "100 Most Creative People in Business." **Fast Company,** May 27, 2010.
- "Profile: Luis von Ahn." **NOVA scienceNOW,** June 30, 2009.
- "50 Best Brains in Science." **Discover Magazine,** December 2008.
- "Luis von Ahn: The Pioneer of 'Human Computation.'" **BusinessWeek.com,** November 3, 2008.
- "Ten to Watch for the Future of AI." **IEEE Intelligent Systems,** May/June 2008.
- "Luis von Ahn: Human Computation." **PBS Wired Science,** originally aired December 19, 2007.
- "50 Most Influential People in Technology." **Silicon.com,** October 12, 2007.
- "America's Top Young Innovators in the Arts and Sciences." **Smithsonian Magazine,** October 2007.
- "TR35 2007 Young Innovators Under 35." **Technology Review,** August 15, 2007.
- "For Certain Tasks, the Cortex Still Beats the CPU." Full feature in **Wired Magazine,** July 2007.
- "The Fifth Annual Brilliant 10." **Popular Science Magazine,** October 2006.
- "25 Newly Minted Geniuses." **Chicago Tribune,** September 19, 2006.
- "Genius, Hard Work, Pay Off." **CBS News**, September 19, 2006.
- "CMU Computer Science Professor Wins $500,000 Genius Award." **Pittsburgh Post-Gazette,** September 18, 2006.
- "CMU Computer Expert Named One of Brilliant 10." **Pittsburgh Tribune-Review,** September 13, 2006.
- "Here Come Science's Best and Brightest: The Brilliant 10." **USA Today**, September 11, 2006.